Title: Differential impact of patient weight on pain-related judgments about male and female chronic low back pain patients.

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Declaration:

Part of this dataset has been presented at the Scientific Meeting of the American Pain Society. We confirm that there are not any closely related manuscripts that have been submitted for simultaneous consideration to the same or another journal. There are no conflicts of interest that might be seen as influencing or prejudicing the research. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Highlights

- Pain was discounted for normal and overweight women and obese men.
- Pain was treated less for normal and overweight women and obese men.
- Across weight categories, women's pain was "psychologized" more than men's pain.
- Results indicate disparate impact of weight on pain judgments about women and men.

Abstract

Compared to men, women report more pain and are at increased risk for having pain discounted or misattributed to psychological causes. Overweight individuals experience high rates of pain and may receive suboptimal care due to provider bias. Research suggests the social consequences of being overweight are worse for women than men, and that gender and weight uniquely and interactively impact pain experience and care. Healthy participants (N=616) viewed six videos of back pain patients (1 female and 1 male of normal-weight, overweight, and obese categories) performing a functional task. Participants provided judgments/ratings regarding patient pain (intensity, interference, exaggeration), potential sources of patient pain (medical, psychological), and treatment recommendations (opioids, psychological therapy, seek workplace accommodations). Results suggest that the pain of normal and overweight women and obese men was discounted (judged as less intense, less interfering, more exaggerated, and less attributable to medical factors) and judged as less in need of treatment (treated with less opioids and workplace accommodations). Across all weight categories, women's pain was attributed more to psychological factors and was more likely to receive recommendations for psychological therapy than men's pain. These findings highlight the differential impact of patient weight on pain-related judgments about women and men.

Keywords: obesity, weight, gender, chronic low back pain, pain assessment, pain treatment

Perspective: This article examines the relationships among patient weight, patient gender, and observers' pain appraisals and treatment recommendations. These findings highlight the differential impact of patient weight on pain-related judgments about women and men and indicate the need for research to determine how these judgments affect treatment decisions in clinical settings.

Introduction

Approximately 100 million American adults experience chronic pain.[37] Individuals' weight and gender place them at differential risk for chronic pain. Women report more pain than men[22] and are more likely to develop pain conditions including fibromyalgia, migraine or chronic tension-type headaches, irritable bowel syndrome, temporomandibular pain, and interstitial cystitis.[3,22,49] In laboratory studies, women consistently demonstrate lower pain thresholds and tolerance than men.[3] These findings are notable given evidence from clinical settings that, in comparison to men, women are more likely to have their pain undertreated, discounted, or misattributed to psychological causes.[35,37] Similarly in experimental studies, women's pain is judged to be less intense, treated less aggressively, and prescribed psychological treatment more often compared to equivalent men.[30,32,33,78] These systematic gender differences in pain appraisals and pain care decisions are inconsistent with treatment guidelines and are likely to adversely affect patient outcomes.

Overweight individuals also experience high rates of chronic pain and are at risk for suboptimal care.[52,56,60,64] Overweight or obese individuals are 1.7 to 2.3 times more likely to report severe pain compared to their normal-weight counterparts and are more likely to report pain in multiple locations.[34] In comparison to normal-weight individuals, overweight and obese people are also more likely to develop several chronic pain conditions including low back pain,[41,71,82] arthritis,[44] chronic headaches,[7,67] abdominal pain,[82] and fibromyalgia.[51,82] Additionally, research indicates many providers hold negative implicit and explicit biases against overweight and obese patients,[64] endorsing negative stereotypes and beliefs that such individuals are lazy, unmotivated, non-compliant, lack self-control, and responsible for their health condition;[55,59] such attitudes have even been observed in providers specializing in treatment of obesity.[69]

Outside the health setting, research suggests the social consequences of being overweight are worse for women than men. An overweight/obese woman is less likely to be hired, receive equal pay, be promoted, or enroll in college than her male counterpart.[13,14,21,26,52,57,63] These gender disparities are relevant to pain care because many pain conditions that occur more often in women -- such as fibromyalgia, migraine or chronic tension-type headaches[22,49] -- are also associated with being overweight.[7,51,67,82]

Collectively, the above literature suggests that both gender and weight have a unique and interactive impact on pain experience and pain-related care. However, no study to date has examined the influence of patient weight on pain-related appraisals or the interaction of patient weight and gender in the context of such appraisals. Recent studies have utilized experimental methodology to examine pain-related assessments and care recommendations made by laypersons as well as medical providers.[16,17,18,19] Findings from these studies have highlighted a range of patient, provider, and contextual variables that may contribute to biased pain and treatment assessments and ultimately societal inequities in the burden of pain. The current study utilized similar methodology to specifically examine the effects of patient weight and gender on laypersons' pain-related judgments. Observers watched video segments of real chronic pain patients performing standardized physical tasks. Based on current guidelines for pain assessment/treatment[12,61] and studies suggesting gender and weight differences in pain appraisals and pain treatment recommendations,[32,33,55,64,78] we asked observers to provide ratings in three broad domains: 1) patient pain, 2) pain attributes, and 3) treatment recommendations. We hypothesized main effects of patient gender and weight, such that the pain of female and overweight patients would be discounted (i.e., rated as less intense and interfering, more exaggerated, more attributed to psychological than medical factors, and less in need of pain-specific care) relative to that of male and normal-weight patients. We also hypothesized a gender by weight interaction, such that the pain of obese female patients would be most discounted relative to other weight (i.e., normal-weight or overweight) and gender categories.

Method

Sample

Six hundred and sixteen undergraduate students from Indiana University-Purdue University Indianapolis (IUPUI, N=427) and the University of North Texas (UNT, N=189) were recruited to participate in this study. Participants needed to be at least 18 years of age and enrolled in college courses.

Procedure

All study procedures were completed online and approved by the Institutional Review Boards at IUPUI and UNT. Participants were provided a link to access the study. Upon entering the study website, they provided informed consent and basic demographic information.

Participants were then presented with the following directions: “You will now see pictures of six different chronic pain patients. Imagine that these patients are seeking treatment from you. Along with each picture, you will get specific information about each patient. Following the picture of each patient, you will see a video of the patient performing a physical activity as part of their standard physical evaluation. In total, you will be presented with six video clips and will be asked questions following each video. Closely examine all of the information for each patient. This study aims to understand how healthcare practitioners formulate an impression of patients." Patient videos were randomly paired with patient sex-concordant vignettes containing personal background and relevant medical information. Patient videos and vignettes were presented in random order. Participants were asked to make ratings following each video-vignette pairing. The study took 40 to 60 minutes to complete, and participants were compensated with course credit.

Stimulus Set

Six videos of chronic low back pain patients were selected from the Ghent Pain Videos of Daily Activities (G-PAVIDA), a collection of videos of Belgian pain patients who consented to being videotaped for research purposes (see [18] for a description of the G-PAVIDA). Videos showed full-length frontal views of normal-weight, overweight, and obese patients; in each video, the patient sat down in a chair from a standing position and then stood back up from the chair. All patients were Caucasian and exhibited an equivalent moderate level of pain expression/behavior (see [18] for detailed description of pain coding and classification). Two patients (one male, one female) were presented for each weight category (normal-weight, overweight, and obese). Patients were classified by weight category in accordance with BMI standards established by the Centers for Disease Control and Prevention;[81] BMI was calculated using patients’ height and weight. In addition to pain behavior, patient videos were matched for perceived age, weight, and attractiveness as validated in pilot testing. Specifically, pilot study participants (N=783 healthy laypersons) rated the perceived age, weight category (i.e., normal-weight, overweight, obese), and attractiveness of each patient in the video catalogue. These ratings were used to select the six patient videos that were equivalent on age and attractiveness, weight-matched within each weight category, for the current study. Vignettes describing relevant personal background (e.g., a physically demanding occupation) and medical (e.g.,

details of injury and pain; these details were equivalent across vignettes) information were randomly paired with patient sex-concordant videos (See Appendix A for example vignettes).

Patient Appraisals

After viewing each patient video, participants were asked to provide judgments/ratings regarding patient pain, pain attributes, and treatment recommendations. All ratings were provided using a Visual Analogue Scale (VAS) ranging from 0 to 100 and with domain-specific anchors.

Patient pain. Participants were asked the following questions regarding each patient's pain: (a) "How much pain do you think this patient was experiencing?" [*No pain* to *Worst possible pain*], (b) "To what degree do you think that the pain interferes with the daily functioning of this patient?" [*No interference* to *A great deal of interference*], and (c) "To what degree do you think this patient was exaggerating their pain?" [*No exaggeration* to *A great deal of exaggeration*].

Pain attributes. Participants were asked the following questions regarding each patient's sources of pain: (a) "What proportion of the patient's pain is likely due to medical factors (e.g., nerve or muscle damage)?" [*0%* to *100%*], and (b) "What proportion of the patient's pain is likely due to psychological factors (e.g., depression, personality issues)?" [*0%* to *100%*].

Treatment Recommendations. Participants were asked how likely they were to make specific treatment recommendations for the patient, including (a) asking for workplace accommodations, (b) taking an opioid/narcotic pain medication, and (c) seeking treatment from a psychologist/therapist. Responses ranged from *Not at all likely* to *Extremely likely*.

Data Analytic Approach

Descriptive statistics were used to summarize participants' demographic characteristics. Separate 2 (Patient Gender: Male vs Female) x 3 (Patient Weight: Normal-weight vs Overweight vs Obese) repeated measures analyses of variance (rANOVAs) were used to examine participants' ratings of patient pain, pain attributes, and treatment recommendations. For each analysis, we tested the main effects of Patient Gender and Patient Weight, and their interaction. Effect sizes are reported as partial eta squared (η_p^2) and interpreted using the following metrics: .01=small effect, .06=medium effect, and .14=large effect. Post hoc tests, with Bonferroni

correction, were used to probe significant interactions. In the event of significant interactions, main effects are not discussed. All analyses were performed using SPSS version 23.

Results

The final sample was 65.6% White, 5.5% Hispanic, 9.7% Black, 9.4% Asian, 0.8% Alaskan Native/Native American, 0.3% Native Hawaiian or Pacific Islander, 6.5% Multi-racial, and 2.2% did not specify race/ethnicity. Mean age was 20.26 years (SD=4.53) and 76% of the sample was female.

Patient Pain

Pain intensity. Mean ratings for pain assessment and treatment by weight and gender category are reported in Table 1. Analyses indicated a significant interaction between Patient Gender and Patient Weight ($F(2, 614)=408.48$, $p<.05$, $\eta_p^2=0.40$; Figure 1). Specifically, participants judged normal-weight (mean difference [MD]=19.00, $p<.05$, SE=1.07, 95% CI=16.9, 21.09) and overweight (MD=7.95, $p<.05$, SE=.83, 95% CI=6.32, 9.58) males to be in more pain than their female counterparts; however, this pattern was reversed for obese patients. For obese patients, participants judged female patients (MD=-18.33, $p<.05$, SE=1.07, 95% CI=-20.43, -16.23) to be in more pain.

Pain interference with functioning**.** Similar to the results for pain intensity, a significant interaction between Patient Gender and Patient Weight ($F(2, 614)=316.47$, $p<.05$, $\eta_p^2=0.34$; Figure 1) indicated that participants rated normal-weight (MD=18.41, $p<.05$, SE=1.07, 95% CI=16.33, 20.51) and overweight (MD=9.29, $p<.05$, SE=.83, 95% CI=7.66, 10.91) male patients as experiencing more pain interference than their female counterparts, whereas the opposite was observed for obese patients. For obese patients, participants judged female patients to be experiencing more pain interference (MD=-15.40, $p<.05$, SE=1.09, 95% CI=-17.54, -13.27).

Pain exaggeration. Analyses indicated a significant interaction between Patient Gender and Patient Weight ($F(1.91, 614)=32.74$, $p<.05$, $\eta_p^2=0.05$; Figure 1). Participants rated female normal-weight (MD=-8.68, $p<.05$, SE=1.15, 95% CI=-10.93, -6.42) and overweight (MD=-6.52, $p<.05$, SE=1.06, 95% C.I.=-8.61, -4.43) patients as exaggerating their pain more than their male counterparts. For obese patients, participants judged male patients as exaggerating their pain more than their female counterparts (MD=3.40, $p<.05$, SE=1.21, 95% CI=1.03, 5.76).

Pain Attributes

Medical factors. A significant interaction between Patient Gender and Patient Weight ($F(2, 614)=69.46$, $p<.05$, $\eta_p^2=0.10$; Figure 2) indicated that participants judged medical factors to make a greater contribution to the pain of normal-weight (MD=12.20, $p<.05$, SE=1.15, 95% CI=9.94, 14.45) and overweight (MD=7.61, $p<.05$, SE=.93, 95% CI=5.79, 9.43) male patients compared to their female counterparts. The pattern was again reversed for obese patients, such that participants judged that medical factors contributed more to obese women's pain (MD=-3.99, $p<.05$, SE=1.11, 95% CI=-6.16, -1.82) than to obese men's pain.

Psychological factors. Analyses indicated a significant interaction between Patient Gender and Patient Weight ($F(2, 614)=3.64$, $p<.05$, $\eta_p^2=0.01$; Figure 2). Participants judged psychological factors to make a greater contribution to the pain of female patients at all weight categories, compared to their male counterparts. However, the differences between appraisals of female and male patients became smaller as patient weight increased (Normal-weight MD=-5.86, SE=1.17, 95% C.I.=-8.16, -3.57; Overweight MD=-5.78, SE=.96, 95% CI=-7.67, -3.90; Obese MD=-2.50, SE=1.06, 95% CI=-4.59, -.41, all *ps*<.05).

Treatment Recommendations

Workplace accommodations**.** There was a significant interaction between Patient Gender and Patient Weight ($F(2, 614)=89.99$, $p<.05$, $\eta_p^2=0.13$; Figure 3). Similar to pain intensity and pain interference ratings, normal-weight (MD=12.58, $p<.05$, SE=1.18, 95% CI=10.27, 14.90) and overweight (MD=5.15, $p<.05$, SE=1.04, 95% CI=3.11, 7.19) men were more likely to receive recommendations for workplace accommodation than normal-weight and overweight women, whereas an opposite pattern was found for obese patients (MD=-6.99, $p<.05$, SE=1.14, 95% CI=-9.22, -4.75).

Opioids. There was a significant interaction between Patient Gender and Patient Weight ($F(2, 614)=117.01$, $p<.05$, $\eta_p^2=0.16$; Figure 3). Echoing the pattern found for pain intensity, pain interference, and workplace accommodations ratings, participants were more likely to recommend opioid/narcotic medications for normal-weight (MD=14.26, $p<.05$, SE=1.14, 95% CI=12.01, 16.51) and overweight (MD=9.45, $p<.05$, SE=1.09, 95% CI=7.30, 11.59) male patients in comparison to their female counterparts, whereas an opposite pattern was found for obese patients (MD=-8.46, $p<.05$, SE=1.21, 95% CI=-10.83, -6.09).

Psychological Therapy. There was a significant interaction between Patient Gender and Patient Weight ($F(2, 614)=117.01$, $p<.05$, $\eta_p^2=0.16$; Figure 3). Participants were more likely to

recommend psychological intervention for overweight (MD=-2.13, $p<.05$, SE=.97, 95% CI=-4.30, -.47) and obese (MD=-5.41, $p<.05$, SE=1.11, 95% CI=-7.60, -3.23) female patients in comparison to their male counterparts. Although participants were more likely to recommend psychological intervention for normal-weight female patients compared to their male counterparts, this difference did not reach statistical significance ($p=.07$).

Discussion

The current study examined the relationship between patient weight, patient gender, and observers' pain assessment, pain attribution, and treatment recommendations. In line with our hypotheses, the findings broadly indicated that patient weight and gender influenced observers' pain judgments and treatment recommendations. The overall pattern of results suggests that the pain of normal and overweight women and obese men was discounted and judged to be less in need of treatment than their weight-matched counterparts. Specifically, the pain of normal and overweight women, as well as obese men, was assessed as less intense, less interfering, and more exaggerated than their weight-matched counterparts. Their pain was also judged to be less attributable to medical factors and less justifying of opioid treatment and workplace accommodations. Also in the hypothesized direction, women's pain, across all three weight categories, was attributed more to psychological factors and judged to require treatment with psychological therapy more so than men's pain, although these effects were relatively less pronounced.

For normal and overweight patients, this pattern is in line with previous studies that found women's pain is more likely to be under-assessed and undertreated.[30,32,35,37,78] Also similar to previous research is our finding that women's pain, across all weight categories, was more attributed to psychological factors than was men's.[32,35,66] In line with recent conceptualizations, (mis)attribution of pain as psychological in nature could be considered a form of discounting.[39] Defined by Kool and colleagues[39] as a type of invalidation, discounting responses to pain have been shown to negatively impact the physical and emotional health of individuals with pain conditions, particularly fibromyalgia[25,65] which is known to be more prevalent in women.[80] Our findings, despite their relatively smaller effect sizes, align with those from non-pain studies in which women are more likely to have their physical symptoms dismissed as psychological reactions. For example, in the cardiovascular literature, it has been reported that women exhibiting myocardial infarction symptoms are often undertreated and diagnosed with anxiety or

psychiatric illness despite evidence (i.e., cardiac scans) to the contrary, consequently delaying essential care and putting women at increased risk for death.[4,27,43,48,76]

For obese patients, men were rated as having less pain and rated as less in need of treatment than women. Previous research suggests that the negative social consequences of being overweight are more pronounced for women than men,[14,15,21,26,52,57,63,70] and our findings for normal and overweight patients are consistent with this research. What then is to be made of the reverse pattern for obese patients in the current study? One possibility is that these paradoxically harsher judgements of male patients may reflect observers' responses to ostensible violations of stereotypical masculine roles. In particular, both obesity and pain expression may violate societal definitions of masculinity. Literature suggests that the softness and roundness of excess weight is feminizing and in direct opposition to the idea that men are muscular, strong, and powerful.[5,23] Men are also traditionally believed to be stoic and more pain-tolerant;[38] expression of pain during an everyday sit-to-stand activity may thus have been further demasculinizing of obese male patients.[6,54] These violations of stereotypical masculinity may have contributed to the harsher ratings for obese men in the current study, increasing the probability of poor outcomes (i.e. physical disability) due to undertreatment of their pain.

At first glance, the current results suggest that women's pain is discounted compared to men's pain. The discounting of women's pain may put women who are both undertreated for chronic pain and who are overweight or obese at risk for greater disability and reduced quality of life.[2] These risks are in addition to the stigmatization and negative social consequences (e.g., lower occupational and educational attainment) of being overweight or obese.[13,14,21,26,52,57,63] Additionally, obese women may have less social support to buffer against these disadvantages, as obesity is linked to less social contact and greater loneliness.[67,73] However, perhaps less obviously, men may also suffer consequences from the pattern of judgments observed herein. Both the widely accepted and the more recently proposed revised definition of pain explicitly state that it is an "emotional experience"[47,79] and occurs in a social context.[79] This aspect of pain is reflected in the current findings that women were perceived to have a stronger psychological component to their pain and were more likely to be recommended to psychological therapy. Although these results could be interpreted as a bias against women (see discussion above), they could also be interpreted in a negative light vis-à-vis men. That is, men may be less likely to have the emotional aspects of their pain acknowledged by others, which may disadvantage them

in terms of accessing evidence-based psychological services, such as cognitive behavioral therapy for chronic pain. As such, men may be at increased risk for suboptimal pain care, at least when it comes to their psychological needs. Future research is needed to better understand how, why, and when patients' gender and weight affect pain-related judgments and treatment recommendations – answers to these questions are key to developing targeted interventions that reduce disparities and improve pain care.

The combination of experimental methodology with real patient videos builds on established approaches to examining both pain and obesity. Most previous studies examining pain judgments have asked participants to make ratings of text vignettes,[6,9,10,11] still images of patients,[8] or videos of computer-simulated patients.[30,31,56] Likewise, studies examining weight bias have tended to use text vignettes,[53,60] figure drawings,[24,28,72] or still images.[29,50,62,73,75] In contrast, participants in the current study rated videos of actual patients completing a standardized and highly relevant functional task. The ecological validity of the video stimuli is noteworthy and increases confidence that the results reflect the true nature of gender and weight effects on pain-related judgments – at least those made by non-clinical observers – in the real world.

Although our sample is large and diverse, these findings should be interpreted within the context of the sample and stimuli. Given that the sample was composed of healthy young adults, the results may not generalize to pain care providers. Healthy young adults do not have the training or expertise of healthcare providers; therefore, replication in a sample of providers is needed before drawing strong conclusions about how these factors influence clinical care and patient outcomes. The present sample was predominately female (76%). Given prior studies suggesting gender differences in providers' pain appraisals,[33] we ran additional exploratory analyses examining how participant gender interacted with patient gender and patient weight to influence pain appraisals and treatment recommendations. The overall pattern of results did not change, nor did any conclusions that may be drawn from them, when participant gender was included in the analyses. Nevertheless, future studies are needed to better examine whether and how provider gender interacts with patient gender and patient weight to influence pain-related judgments. Additionally, because all patients were White, it is unknown how patient race may influence these judgments. Given evidence that racial bias affects pain treatment

recommendations,[31] future studies should also investigate whether and how patient race interacts with patient gender and weight in this context.

Although previous research examined the independent effects of patient gender and weight on pain-related judgments, to our knowledge, this is the first study to investigate the interaction of patient gender and weight on pain assessment, pain attributions, and pain treatment recommendations. Our results suggest that for normal and overweight patients with chronic back pain, men's pain is perceived to be more legitimate and in need of treatment than women's pain. However, for obese patients, this pattern reverses such that women's pain is viewed as more legitimate. Nevertheless, and consistent with prior research on pain and other health conditions, women's pain is consistently viewed as more psychological in nature and more in need of psychological treatment. These findings highlight the differential impact of patient weight on pain-related judgments about women and men and indicate the need for more research to determine how these judgments affect treatment decisions in clinical settings.

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Figure 1. Pain – Patient Weight x Patient Gender

Figure 2. Pain Attributes – Patient Weight x Patient Gender

Figure 3. Treatment Recommendations – Patient Weight x Patient Gender

Table 1. Mean ratings by patient weight and gender category

Weight Category	Male Patients		Female Patients	
	Mean	SD	Mean	SD
Pain intensity				
Normal Weight	53.11	19.22	34.41	22.32
Overweight	69.11	16.70	61.99	17.06
Obese	44.32	22.54	62.45	18.78
Pain interference				
Normal Weight	55.11	19.19	37.18	21.82
Overweight	72.14	17.99	64.24	17.64
Obese	47.88	23.06	62.88	19.58
Exaggeration of pain				
Normal Weight	36.57	20.77	45.59	24.95
Overweight	32.90	23.66	38.85	20.77
Obese	48.31	23.54	46.61	23.10
Medical factors				
Normal Weight	60.37	20.91	47.85	23.87
Overweight	68.09	20.07	61.34	19.27
Obese	50.05	23.50	53.33	22.00
Psychological factors				
Normal Weight	34.31	24.08	41.74	25.43
Overweight	32.92	24.29	38.74	24.24
Obese	40.81	25.83	43.31	26.04
Workplace Accommodations.				
Normal Weight	56.69	23.34	45.29	25.54
Overweight	64.85	22.68	60.12	20.82
Obese	49.58	24.94	56.08	24.37
Opioids				
Normal Weight	47.26	25.67	33.27	26.10
Overweight	58.56	24.71	49.76	25.68
Obese	38.48	26.51	46.60	27.58
Psychological therapy				
Normal weight	33.91	25.47	36.04	25.67
Overweight	35.94	27.32	38.33	26.21
Obese	35.92	26.10	41.33	26.84

Appendix A

Temperature	Blood Pressure	Heart Rate	Respiratory Rate	Mental Status
98.6	117/78	72 bpm	13 rpm	A/O X 4*
Mr. Miller presents to the clinic for a disability evaluation. He reports having chronic low back pain for the past 9 months following a work-related injury. He is a construction worker and states that his pain started after attempting to lift a heavy piece of equipment. He has reportedly experienced pain daily since the injury. Mr. Miller states that the pain interferes with his ability to perform his work duties as well as other normal daily activities. Aside from his current pain complaint, Mr. Miller's past medical history is unremarkable. As part of his disability evaluation, Mr. Miller was asked to perform several standardized movements that are depicted in the video.				
Temperature	Blood Pressure	Heart Rate	Respiratory Rate	Mental Status
98.2	117/79	71 bpm	17 rpm	A/O X 4
Ms. Thomas presents to the clinic for a disability evaluation. She reports chronic low back pain that started 8 months ago while at work. She is an office maintenance worker and states that her pain began when she attempted to move a large desk. She has experienced daily pain since this time. The pain has reportedly made it difficult to perform normal daily activities and also interferes with her job. Ms. Thomas does not have any other prior medical issues. As part of her disability evaluation, Ms. Thomas was asked to perform several standardized movements that are depicted in the video.				

*Alert and oriented x 4

Figure 1.

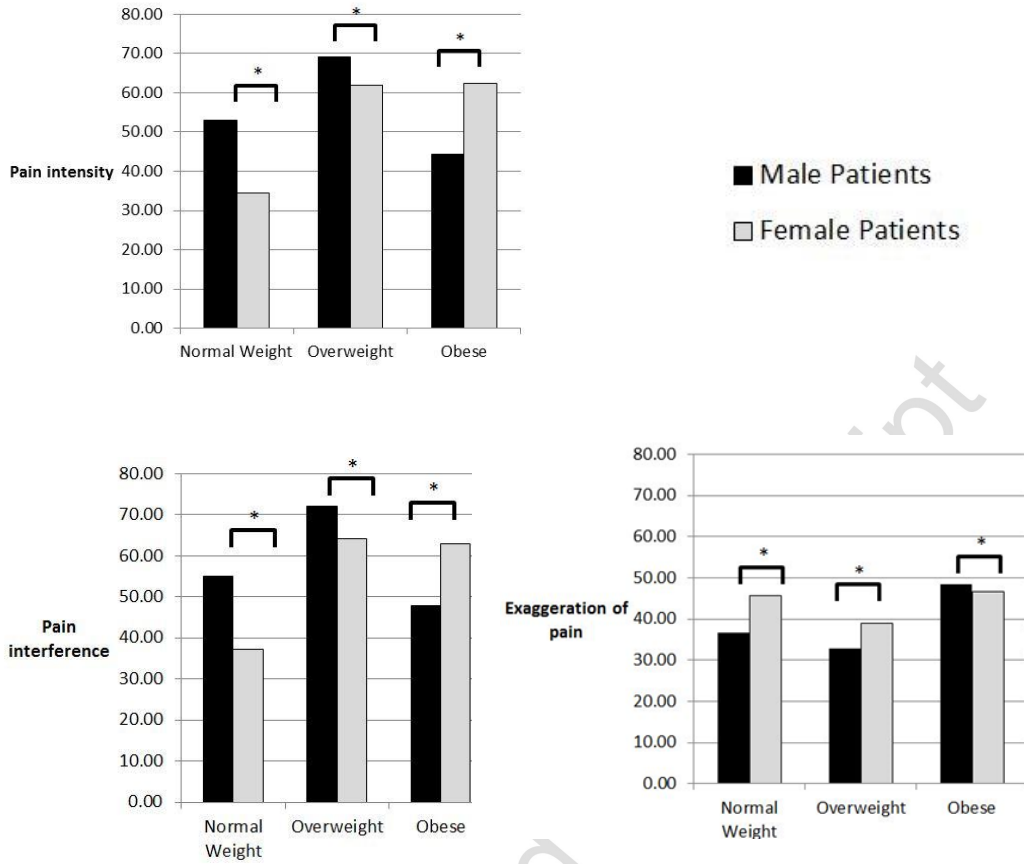

Figure 2.

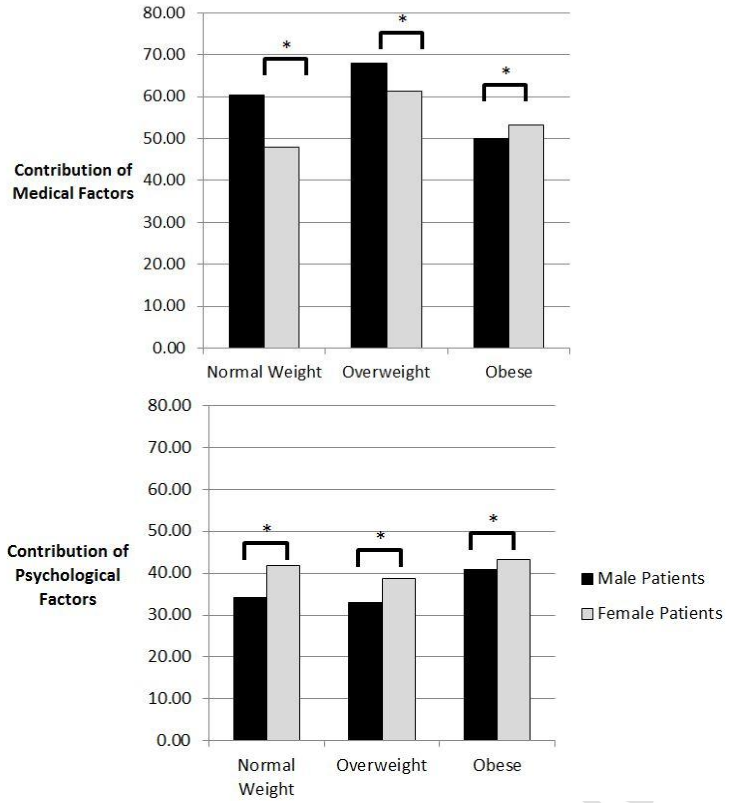

Figure 3.